

REMARKS/ARGUMENTS

In the final Office Action, claims 1, 2, 12, 13 and 20 were rejected under 35 U.S.C. §102(e) as being anticipated by Caulkins (U.S. Patent No. 6,473,355). Further, claims 3, 6, 9-11, 14-16 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Caulkins in view of Lee et al. (U.S. Patent No. 4,730,121). Additionally, claims 7-8 and 17-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Caulkins in view of Zandveld et al. (U.S. Patent No. 4,841,474). Further, claim 21 was rejected under 35 U.S.C. 103(a) as being unpatentable over Caulkins in view of Culbert (U.S. Patent No. 5,557,777).

The Applicants appreciate the continued indication in the Office action that claims 4 and 5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In response to the Office action, the Applicants have added a further new claim 22, which further sets forth that, upon failure of both a primary power and a backup power, the backup power remains disconnected until the primary power returns even though the backup power source (e.g., a battery) is replaced such that backup power has recovered. This new claim does not add new matter.

Further, in response to the Office action, the Applicants provide the following Remarks. In particular, the Applicants traverse the rejections of independent claims 1, 12 and 20 in view of Caulkins. Additionally, the Applicants traverse the rejections of dependent claims 3 and 14 as being obvious in view of the combination of Caulkins and Lee et al. The Applicants appreciate the Examiner's consideration of these Remarks.

Allowability of Independent Claims 1, 12 and 20

The Applicants have carefully considered the comments in the final Office action, particularly the comments in paragraphs 2 and 9 in which it is argued that the statement within Caulkins that a volatile memory device is "shut down in an orderly manner" should be interpreted as meaning "termination of power after specific tasks are accomplished in a predetermined order".

After careful consideration of these comments and further discussion among the Applicants' attorney and the Applicants, the Applicants respectfully and vigorously submit that this interpretation of the phrase "shut down in an orderly manner" is incorrect. The Applicants in particular submit that the phrase "shut down in an orderly manner" need not, and does not inherently, entail the disconnection of a backup supply line. Nor does this phrase support the view that an electronically controlled switch is inherently used to disconnect the backup supply line.

Rather, the phrase "shut down in an orderly manner" when used in the context of a volatile memory device could entail any of a number of functions including, for example, the cessation of memory storage operations or the cessation of the communication of data with outside devices, none of which necessarily entails disconnection of a power supply from the memory device. Indeed, if one turns to the Webster's II New College Dictionary, 1995 edition, one finds that the phrase "shut down" merely signifies "[a] cessation of operations or activity, as work in a factory" (page 1024); no mention is made that the phrase denotes or connotes the disconnection of any power supply line or source.

The Applicants respectfully remind the Examiner that Section 2112 of the M.P.E.P. provides that "[i]n relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." For at least the reasons described above, the Applicants respectfully submit that the Examiner has not shown that the simple use of the phrase "shut down in an orderly manner" in Caulkins necessarily implies the disconnection of a backup supply line by way of an electronically controlled switch or otherwise.

To summarize, there simply is no reason to presume that the phrase "shut down in an orderly manner" necessarily or inherently entails the disconnection of a backup supply line by an electronic switching device or otherwise, and so the Applicants reiterate that Caulkins fails to disclose these features recited within each of independent claims 1, 12, and 20. For at least this reason, therefore, the Applicants submit that each of the independent claims 1, 12 and 20 are allowable under 35 U.S.C. 102(e) over Caulkins.

Further Comment Regarding Allowability of Claim 20

The Applicants further wish to comment that claim 20 specifically recites a circuit that, upon making a determination that both primary and backup power have been disrupted, “at least one of (i) provides a signal indicating that the data is no longer reliable and (ii) operates to prevent the volatile memory from receiving the backup power until after a time at which the primary power has recovered”. The Applicants respectfully submit that the phrase “shut down in an orderly manner” not only does not necessarily or inherently entail disconnecting or preventing the receipt of backup power, but also does not necessarily or inherently entail providing “a signal indicating that the data is no longer reliable”. For at least this additional reason, therefore, the Applicants submit that Caulkins fails to disclose all of the limitations of independent claim 20 and that claim 20 is consequently allowable under 35 U.S.C. 102(e) over Caulkins.

Allowability of Dependent Claims 3 and 14

Regardless of whether independent claims 1 and 12 are allowable for the above-discussed reasons, the Applicants further traverse the rejections of dependent claims 3 and 14 as being obvious in view of the combination of Caulkins and Lee et al. In particular, the Applicants have carefully reviewed the sections of Lee et al. referred to in paragraph 4 of the Office action (namely, FIG. 1 and col. 11, line 40) that are purported to show the features recited in claims 3 and 14 relating to a latching means/latching step that involves causing the backup supply line to remain disconnected even after restoration of backup voltage. Based upon the Applicants’ review of these sections of Lee et al., the Applicants respectfully submit that Lee et al. entirely fails to disclose the features recited in claims 3 and 14.

Although Lee et al. discloses a circuit that is capable of coupling a load to either of a primary power supply voltage and a battery voltage, Lee et al. nevertheless entirely lacks any disclosure of any component(s) that cause the battery power to remain disconnected subsequent to a failure of the primary power supply even though the battery voltage/power recovers to a normal level. In particular, although column 11, lines 6-60 discloses a system that is in an isolation condition where a backup battery is isolated from the electrical load and will remain in the isolation condition until the primary power source rises above a certain voltage, the Applicants are unable to find any indication that this isolation condition is entered into due to a failure in the backup battery voltage.

Further, the Applicants are unable to find any discussion at all regarding what would happen if the battery voltage recovered prior to the recovery of the primary power supply.

Indeed, as best as the Applicants can determine, Lee et al. simply does not concern a situation in which both the primary power source and a backup battery have both failed. The isolation condition discussed in column 11 of Lee et al. appears to occur simply when the voltage at the primary power source falls below the battery voltage (see col. 11, lines 6-7), not when both the primary power source and the battery have failed to provide adequate voltage/power. This is confirmed by the discussion at column 11, lines 34-37 at which Lee et al. states "any load connected to the battery voltage output terminal 164 will not drain charge from the backup battery 21 when the power controller 10 is in the isolation condition". Because Lee et al. apparently does not concern the situation in which both the primary power source and a backup battery have both failed, Lee et al. has no need to address the situation that is recited in claims 3 and 14, namely, where both the primary and backup power sources have dropped off and suddenly the backup power source reappears (e.g., because a new battery has been installed) prior to a recovery by the primary power source.

Therefore, for at least these additional reasons, the Applicants submit that Lee et al. entirely fails to disclose the features recited in dependent claims 3 and 14, and consequently that claims 3 and 14 are allowable under 35 U.S.C. 103(a) over the combination of Caulkins and Lee et al.

Allowability of Dependent Claims

Insofar as claims 1, 12 and 20 are allowable for at least the reasons set forth above, the Applicants also submit that claims 2-11, 13-19 and 21-22 depending therefrom are allowable for at least those reasons. Further, insofar as claim 14 is allowable for at least the reasons set forth above, the Applicants further submit that claim 15 depending therefrom is also allowable for at least those reasons.

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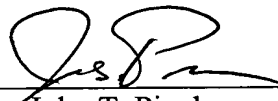
Conclusion

Given the Applicants' Remarks and Amendments, the Applicants respectfully request reconsideration and allowance of the present Application.

Appl. No. 10/058,959
Amdt. Dated 07/23/04
Reply to Office action of April 23, 2004

The Applicants wish to invite the Examiner to telephone the Applicants' attorney at the number listed below if discussion with the Applicants' attorney would be of assistance to the Examiner or further the prosecution of the present Application.

Respectfully submitted,
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QBMke#5606922.1